

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (PREVIOUSLY PRESENTED) A computer system connected to a data communications network, said system comprising:

a first computer;

a second, redundant computer that is independent of the first computer;

a computer-to-computer connection between the first computer and the second computer enabling the first computer to match with the second computer by comparing a first work result of the first computer with a second work result of the second computer; and

at least one computer-to-network connection to connect both the first and second computers to the data communications network independent from the computer-to-computer connection so that receipt of any data from the data communications network is limited to the first computer and transmission of any data to the data communications network is limited to the second computer; wherein at least an initial processing of the data received from the data communications network is limited to the first computer,

wherein the first computer is configured to convert, transmit and to store in the second computer non-verified or non-verifiable data received by the first computer only in non-processable form.

2. (ORIGINAL) The computer system as claimed in claim 1, wherein the first computer is configured to verify the received data in the first computer, and wherein the first computer is configured to supply only verified data to the second computer in processable form.

3. (ORIGINAL) The computer system as claimed in claim 1, wherein the first computer and the second computer are configured to independently verify the received data, and wherein only matching verified data are stored in the second computer in processable form.

4. (ORIGINAL) The computer system as claimed in claim 1, further comprising: a central data memory.

wherein direct access to internal data of the computer system contained in a central data memory is limited to the second computer; and

wherein the first computer is configured to receive the internal data only upon request via the second computer.

5. (ORIGINAL) The computer system as claimed in claim 1, further comprising: an independent, redundant third computer; and

wherein the second computer is configured to match with the third computer by comparing the second work result of the second computer with a third work result of the third computer.

6. (PREVIOUSLY PRESENTED) A method, comprising:

in a first computer, classifying data received from a data communications network as verified data and non-verified data, and producing a first work result representing the verified data;

converting the non-verified data into a non-processable form by the first computer;

forwarding the verified data in processable form and the non-verified data in the non-processable form from the first computer to a second computer via a computer-to-computer connection;

in the second computer, independently verifying the verified data forwarded from the first computer and producing a second work result based on the independent verification;

comparing the first work result with the second work result;

if the first work result and the second work result match, storing the verified data in the second computer; and

limiting receipt of any data from the data communication network to the first computer and limiting transmission of any data to the data communications network to the second computer, via at least one computer-to-network connection independent of the computer-to-computer connection.

7. (CANCELLED)

8. (ORIGINAL) The method of claim 6, wherein only the second computer directly accesses internal data contained in a central data memory, and wherein the first computer indirectly accesses the internal data only upon request via the second computer.

9. (ORIGINAL) The method of claim 6, further comprising matching the second work result of the second computer with a third work result of a third computer.

10. (PREVIOUSLY PRESENTED) The computer system as claimed in claim 1, wherein connection between the first computer and the second computer forms an internal network of the computer system and wherein the data communications network is an external network with respect to the computer system.

11. (PREVIOUSLY PRESENTED) The computer system as claimed in claim 1, wherein the first computer independently verifies the received data producing the first work result and wherein the second computer independently verifies the received data producing the second work result.

12. (PREVIOUSLY PRESENTED) The computer system as claimed in claim 1, wherein data processed by the first computer produces the first work result and wherein data processed by the second computer produces the second work result.

13. (PREVIOUSLY PRESENTED) The computer system as claimed in claim 12, wherein the first and second work results are produced by executing at least one of horizontal parity checks and parallel balancing.

14. (PREVIOUSLY PRESENTED) The computer system as claimed in claim 1, wherein said matching by the first computer with the second computer is performed at an end of a program or when memory is being accessed.

15. (PREVIOUSLY PRESENTED) The computer system as claimed in claim 1, wherein all of the initial processing is performed by the first computer.

16. (PREVIOUSLY PRESENTED) The method as claimed in claim 6, wherein connection between the first computer and the second computer forms an internal network of the computer system and wherein the data communications network is an external network with respect to the computer system.

17. (PREVIOUSLY PRESENTED) The method as claimed in claim 6, wherein the first computer independently verifies the received data producing the first work result and wherein the second computer independently verifies the received data producing the second work result.

18. (PREVIOUSLY PRESENTED) The method as claimed in claim 6, wherein data processed by the first computer produces the first work result and wherein data processed by the second computer produces the second work result.

19. (PREVIOUSLY PRESENTED) The method as claimed in claim 6, wherein said matching by the first computer with the second computer is performed at an end of a program or when memory is being accessed.

20. (PREVIOUSLY PRESENTED) The method as claimed in claim 6, wherein all of the initial processing is performed by the first computer.

21. (PREVIOUSLY PRESENTED) The method as claimed in claim 6, further comprising the second computer matching with a redundant, independent third computer by comparing the second work result of the second computer with a third work result of the third computer.

22. (PREVIOUSLY PRESENTED) The method as claimed in claim 21, wherein only the second and third computers have access to internal data of the computer system and wherein the third computer is configured to implement operation and monitoring of an automation system.

23. (PREVIOUSLY PRESENTED) The computer system as claimed in claim 5, wherein user inputs are supplied via a keyboard or a mouse in parallel to the first computer, the second computer and the third computer.

24. (PREVIOUSLY PRESENTED) The method as claimed in claim 21, wherein user inputs are supplied via a keyboard or a mouse in parallel to the first computer, the second computer and the third computer.

25. (PREVIOUSLY PRESENTED) A method, comprising:
in a first computer, classifying data received from a data communications network as

verified data and non-verified data, and producing a first work result representing the verified data;

converting the non-verified data into a non-processable form by the first computer;

forwarding the verified data in processable form and the non-verified data in the non-processable form from the first computer to a second computer;

in the second computer, independently verifying the verified data forwarded from the first computer and producing a second work result based on the independent verification;

comparing the first work result with the second work result; and

if the first work result and the second work result match, storing the verified data in the second computer,

wherein receipt of any data from the data communication network is limited to the first computer and wherein transmission of any data to the data communications network is limited to the second computer, and

wherein data received from the data communications network and data transmitted to the data communications network are limited without otherwise limiting forwarding of verified data in processable form and non-verified data in the non-processable form, from the first computer to the second computer.